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test runs and calculated in Equation 2 of this section.

§ 63.4363 How do I establish the addon control device operating limits during the performance test?

During the performance test required by §§63.4340 or 63.4350 and described in §§63.4360, 63.4361, and 63.4362, you must establish the operating limits required by §63.4292 according to this section, unless you have received approval for alternative monitoring and operating limits under §63.8(f) as specified in §63.4292.

- (a) Thermal oxidizers. If your add-on control device is a thermal oxidizer, establish the operating limits according to paragraphs (a)(1) and (2) of this section.
- (1) During the performance test, you must monitor and record the temperature at least once every 15 minutes during each of the three test runs. You must monitor the temperature in the firebox of the thermal oxidizer or immediately downstream of the firebox before any substantial heat exchange
- (2) Use the data collected during the performance test to calculate and record the average temperature maintained during the performance test. This average temperature is the minimum operating limit for your thermal oxidizer.
- (b) Catalytic oxidizers. If your add-on control device is a catalytic oxidizer, establish the operating limits according to either paragraphs (b)(1) and (2) or paragraphs (b)(3) and (4) of this section.
- (1) During the performance test, you must monitor and record the temperature at the inlet to the catalyst bed and the temperature difference across the catalyst bed at least once every 15 minutes during each of the three test runs.
- (2) Use the data collected during the performance test to calculate and record the average temperature at the inlet to the catalyst bed and the average temperature difference across the catalyst bed maintained during the performance test. These are the minimum operating limits for your catalytic oxidizer.

- (3) As an alternative to monitoring the temperature difference across the catalyst bed, you may monitor the temperature at the inlet to the catalyst bed and implement a site-specific inspection and maintenance plan for your catalytic oxidizer as specified in paragraph (b)(4) of this section. During the performance test, you must monitor and record the temperature just before the catalyst bed at least once every 15 minutes during each of the three test runs. Use the data collected during the performance test to calculate and record the average temperature just before the catalyst bed during the performance test. This is the minimum operating limit for your catalytic oxidizer.
- (4) You must develop and implement an inspection and maintenance plan for your catalytic oxidizer(s) for which you elect to monitor according to paragraph (b)(3) of this section. The plan must address, at a minimum, the elements specified in paragraphs (b)(4)(i) through (iii) of this section.
- (i) Annual sampling and analysis of the catalyst activity (i.e., conversion efficiency) following the manufacturer's or catalyst supplier's recommended procedures.
- (ii) Monthly inspection of the oxidizer system, including the burner assembly and fuel supply lines for problems and, as necessary, adjust the equipment to assure proper air-to-fuel mixtures.
- (iii) Annual internal and monthly external visual inspection of the catalyst bed to check for channeling, abrasion, and settling. If problems are found, you must take corrective action consistent with the manufacturer's recommendations and conduct a new performance test to determine destruction efficiency according to §63.4362.

§ 63.4364 What are the requirements for CPMS installation, operation, and maintenance?

(a) General. If you are using a control device to comply with the emission standards in §63.4290, you must install, operate, and maintain each CPMS specified in paragraphs (c) and (d) and (e) of this section according to the requirements in paragraphs (a)(1) through (8) of this section. You must

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install, operate, and maintain each CPMS specified in paragraph (b) of this section according to paragraphs (a)(5) through (7) of this section.

- (1) Each CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four equally spaced successive cycles of CPMS operation to have a valid hour of data.
- (2) You must have valid data from at least 90 percent of the hours during which the process operated.
- (3) You must determine the hourly average of all recorded readings according to paragraphs (a)(3)(i) and (ii) of this section.
- (i) To calculate a valid hourly value, you must have at least three of four equally spaced data values from that hour from a continuous monitoring system (CMS) that is not out-of-control.
- (ii) Provided all of the readings recorded in accordance with paragraph (a)(3) of this section clearly demonstrate continuous compliance with the standard that applies to you, then you are not required to determine the hourly average of all recorded readings.
- (4) You must determine the rolling 3-hour average of all recorded readings for each operating period. To calculate the average for each 3-hour averaging period, you must have at least two of three of the hourly averages for that period using only average values that are based on valid data (i.e., not from out-of-control periods).
- (5) You must record the results of each inspection, calibration, and validation check of the CPMS.
- (6) At all times, you must maintain the monitoring system in proper working order including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
- (7) Except for monitoring malfunctions, associated repairs, or required quality assurance or control activities (including calibration checks or required zero and span adjustments), you must conduct all monitoring at all times that the unit is operating. Data recorded during monitoring malfunctions, associated repairs, out-of-control periods, or required quality assurance or control activities shall not be used

for purposes of calculating the emissions concentrations and percent reductions specified in Table 1 to this subpart. You must use all the valid data collected during all other periods in assessing compliance of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

- (8) Any averaging period for which you do not have valid monitoring data and such data are required constitutes a deviation, and you must notify the Administrator in accordance with §63.4311(a).
- (b) Capture system bypass line. You must meet the requirements of paragraphs (a)(5) through (6) and (b)(1) and (2) of this section for each emission capture system that contains bypass lines that could divert emissions away from the add-on control device to the atmosphere.
- (1) You must monitor or secure the valve or closure mechanism controlling the bypass line in a nondiverting position in such a way that the valve or closure mechanism cannot be opened without creating a record that the valve was opened. The method used to monitor or secure the valve or closure mechanism must meet one of the requirements specified in paragraphs (b)(1)(i) through (iv) of this section.
- (i) Flow control position indicator. Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow control position indicator that takes a reading at least once every 15 minutes and provides a record indicating whether the emissions are directed to the add-on control device or diverted from the add-on control device. The time of occurrence and flow control position must be recorded, as well as every time the flow direction is changed. The flow control position indicator must be installed at the entrance to any bypass line that could divert the emissions away from the addon control device to the atmosphere.
- (ii) Car-seal or lock-and-key valve closures. Secure any bypass line valve in the closed position with a car-seal or a

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lock-and-key type configuration. You must visually inspect the seal or closure mechanism at least once every month to ensure that the valve is maintained in the closed position, and the emissions are not diverted away from the add-on control device to the atmosphere.

- (iii) Valve closure continuous monitoring. Ensure that any bypass line valve is in the closed (non-diverting) position through monitoring of valve position at least once every 15 minutes. You must inspect the monitoring system at least once every month to verify that the monitor will indicate valve position.
- (iv) Automatic shutdown system. Use an automatic shutdown system in which the web coating/printing or dyeing/finishing operation is stopped when flow is diverted by the bypass line away from the add-on control device to the atmosphere when the web coating/printing or dyeing/finishing operation is running. You must inspect the automatic shutdown system at least once every month to verify that it will detect diversions of flow and shutdown the web coating/printing or dyeing/finishing operation.
- (2) If any bypass line is opened, you must include a description of why the bypass line was opened and the length of time it remained open in the semi-annual compliance reports required in §63.4311.
- (c) Oxidizers. If you are using an oxidizer to comply with the emission standards, you must comply with paragraphs (c)(i) through (iii) of this section.
- (i) Install, calibrate, maintain, and operate temperature monitoring equipment according to the manufacturer's specifications. The calibration of the chart recorder, data logger, or temperature indicator must be verified every 3 months or the chart recorder, data logger, or temperature indicator must be replaced.
- (ii) For an oxidizer other than a catalytic oxidizer, install, calibrate, operate, and maintain a temperature monitoring device equipped with a continuous recorder. The device must have an accuracy of ± 1 percent of the temperature being monitored in degrees Celsius, or ± 1 °Celsius, whichever is great-

- er. The thermocouple or temperature sensor must be installed in the combustion chamber at a location in the combustion zone.
- (iii) For a catalytic oxidizer, install, calibrate, operate, and maintain a temperature monitoring device equipped with a continuous recorder. The device must be capable of monitoring temperature with an accuracy of ± 1 percent of the temperature being monitored in degrees Celsius or ± 1 degree Celsius, whichever is greater. The thermocouple or temperature sensor must be installed in the vent stream at the nearest feasible point to the inlet and outlet of the catalyst bed. Calculate the temperature rise across the catalyst.
- (d) Other types of control devices. If you use a control device other than an oxidizer or wish to monitor an alternative parameter and comply with a different operating limit, you must apply to the Administrator for approval of an alternative monitoring method under §63.8(f).
- (e) Capture system monitoring. If you are complying with the emission standards in §63.4290 through the use of a capture system and control device, you must develop a site-specific monitoring plan containing the information specified in paragraphs (e)(1) and (2) of this section for these capture systems. You must monitor the capture system in accordance with paragraph (e)(3) of this section. You must make the monitoring plan available for inspection by the permitting authority upon request.
 - (1) The monitoring plan must:
- (i) Identify the operating parameter to be monitored to ensure that the capture efficiency determined during the initial compliance test is maintained; and
- (ii) Explain why this parameter is appropriate for demonstrating ongoing compliance; and
- (iii) Identify the specific monitoring procedures.
- (2) The monitoring plan must specify the operating parameter value or range of values that demonstrate compliance with the emission standards in §63.4290. The specified operating parameter value or range of values must represent

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the conditions present when the capture system is being properly operated and maintained.

(3) You must conduct all capture system monitoring in accordance with the plan.

(4) Any deviation from the operating parameter value or range of values which are monitored according to the plan will be considered a deviation from the operating limit.

(5) You must review and update the capture system monitoring plan at least annually.

OTHER REQUIREMENTS AND INFORMATION

§ 63.4370 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the U.S. EPA, or a delegated authority such as your State, local, or tribal agency. If the Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the U.S. EPA), has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator and are not transferred to the State, local, or tribal agency.

- (c) The authorities that will not be delegated to State, local, or tribal agencies are listed in paragraphs (c)(1) through (4) of this section:
- (1) Approval of alternatives to the work practice standards in §63.4293 under §63.6(g).
- (2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.
- (3) Approval of major alternatives to monitoring under $\S63.8(f)$ and as defined in $\S63.90$.
- (4) Approval of major alternatives to recordkeeping and reporting under $\S 63.10(f)$ and as defined in $\S 63.90$.

§ 63.4371 What definitions apply to this subpart?

Terms used in this subpart are defined in the CAA, in 40 CFR 63.2, and in this section as follows:

Add-on control means an air pollution control device, such as a thermal oxidizer or carbon adsorber, that reduces pollution in an air stream by destruction or removal before discharge to the atmosphere.

As-applied means the condition of a coating at the time of application to a substrate, including any added solvent.

As purchased means the condition of a coating, printing, slashing, dyeing, or finishing material as delivered to the affected source, before alteration.

Capture device means a hood, enclosure, room, floor sweep, or other means of containing or collecting emissions and directing those emissions into an add-on air pollution control device.

Capture efficiency means the portion (expressed as a percentage) of the pollutants from an emission source that is delivered to an add-on control device.

Capture system means one or more capture devices intended to collect emissions generated by a web coating/printing or dyeing/finishing operation in the use of regulated materials, both at the point of application and at subsequent points where emissions from the regulated materials occur, such as flashoff, drying, or curing. As used in this subpart, multiple capture devices that collect emissions generated by a web coating/printing or dyeing/finishing operation are considered a single capture system.

Cleaning material means a solvent used to remove contaminants and other materials, such as dirt, grease, or oil, from a textile before a web coating/ printing operation (surface preparation) or from equipment associated with the web coating/ printing operation, such as tanks, rollers, rotary screens, and knife or wiper blades. Thus, it includes any cleaning material used in the web coating and printing subcategory for surface preparation of substrates or process operation equipment cleaning or both with the exception of cleaning material applied to the substrate using handheld, non-refillable aerosol containers.